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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/500,380	02/08/2000	Kenneth E. Knapp	RR-1645	2519

7590 03/20/2002

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EXAMINER
RENNER, CRAIG A

ART UNIT	PAPER NUMBER
2652	

DATE MAILED: 03/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/500,380	Knapp et al.
Examiner	**Art Unit**
Craig A. Renner	2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *16 Jan 2002*.

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-55* is/are pending in the application.

4a) Of the above, claim(s) *2-11, 13-22, 24-46, and 48-55* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1, 12, 23, and 47* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *8 Feb 2000* is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). *6 & 7*

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

Election/Restriction

1. Applicant's election without traverse of "Invention I., corresponding to claims 1-55" and cancellation of "claims 56-81 without prejudice" in Paper No. 9, filed 16 January 2002, is acknowledged.

2. Applicant's election with traverse of "Species 1, corresponding to FIG. 2 and FIG. 3", upon which applicant indicates that "claims 1, 12, 23, 34, and 47 read" in Paper No. 9, filed 16 January 2002, is acknowledged. Claim 34, however, does not read on the elected species as the elected species does not include "first and second yoke layers and first and second pole-tip layers" (emphasis added). The elected species only includes first and second yoke layers and one pole-tip layer. The traversal is on the ground(s) that "The Examiner has presented no Prima Facie case for the Restriction Requirement to various Species, instead stating only:

'This application contains claims directed to the following patentably distinct species of the claimed invention:

Species 1: Figures 3,2;

Species 2: Figures 10,12;

Species 3: Figure 13;

Species 4: Figures 14,17;

Species 5: Figure 18;

Species 6: Figure 19;

Species 7: Figure 20;

Species 8: Figures 21,22.'

This argument, however, is not found to be persuasive as the criteria for election of species has been met. See MPEP § 809.02(a).

The requirement is still deemed proper and is therefore made FINAL. Accordingly, claims 2-11, 13-22, 24-46 and 48-55 are withdrawn from further consideration pursuant to 37 C.F.R. § 1.142(b), as being drawn to non-elected species, there being no allowable generic or linking claim.

Oath/Declaration

3. The oath or declaration is defective. A new oath or declaration in compliance with 37 C.F.R. § 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because non-initialed and/or non-dated alterations have been made to the oath or declaration. See 37 C.F.R. § 1.52(c).

Drawings

4. The drawings are objected to as failing to comply with 37 C.F.R. § 1.84(p)(5) because they include one or more reference signs not mentioned in the description. Note, for instance, "133" (shown in FIG. 3, for instance) and "138" (shown in FIG. 3, for instance). Appropriate correction is required.

Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 U.S.C. § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 47 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In line 2 of claim 47, it is indefinite as to whether "a moving media" sets forth a single moving medium or a plurality of moving media as "a" is singular while "media" is plural.

Claim Rejections - 35 U.S.C. § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

10. Claims 1, 12 and 47 are rejected under 35 U.S.C. § 102(e) as being anticipated by Santini (US 6,337,783).

With respect to claim 1, Santini teaches a transducer (900) comprising a plurality of solid layers (includes 902 and 906), including a magnetically soft loop (includes 904, 916, and unlabeled element immediately below 902, lines 31-35 in column 3, for instance) substantially encircling an electrically conductive coil section (includes 905) and terminating in first (unlabeled element immediately below 902, lines 31-35 in column 3, for instance) and second (904) magnetically soft layers separated by an amagnetic gap layer (903), the second magnetically soft layer oriented substantially perpendicular to the amagnetic layer (as shown in FIG. 29, for instance). As the claims are directed to a "transducer", per se, the method limitation(s) appearing in line 5 of claim 1 can only be accorded weight to the extent that it/they affect the structure of the completed transducer. Note that "[d]etermination of patentability in 'product-by-process' claims is based on product itself, even though such claims are limited and defined by process [i.e.,

"vacuum-deposited"], and thus product in such claim is unpatentable if it is the same as, or obvious form, product of prior art, even if prior product was made by a different process", *In re Thorpe, et al.*, 227 USPQ 964 (CAFC 1985). Furthermore, note that a "[p]roduct-by-process claim, although reciting subject matter of claim in terms of how it is made [i.e.,"vacuum-deposited"], is still product claim; it is patentability of product claimed and not recited process steps that must be established, in spite of fact that claim may recite only process limitations", *In re Hirao and Sato*, 190 USPQ 685 (CCPA 1976).

With respect to claim 12, Santini teaches a transducer (900) comprising a plurality of solid layers (includes 902 and 906), including a magnetically soft loop (includes 904, 916, and unlabeled element immediately below 902, lines 31-35 in column 3, for instance) substantially encircling an electrically conductive coil section (includes 905) and terminating in first (904) and second (unlabeled element immediately below 902, lines 31-35 in column 3, for instance) magnetically soft layers separated by an amagnetic gap layer (903), the first magnetically soft layer oriented substantially perpendicular to the second magnetically soft layer (as shown in FIG. 28, for instance). As the claims are directed to a "transducer", per se, the method limitation(s) appearing in line 5 of claim 12 can only be accorded weight to the extent that it/they affect the structure of the completed transducer. Note that "[d]etermination of patentability in 'product-by-process' claims is based on product itself, even though such claims are limited and defined by process [i.e., "sputtered"], and thus product in such claim is unpatentable if it is the same as, or obvious form, product of prior art, even if prior product was made by a different process." See *In*

re Thorpe, et al., supra. Furthermore, note that a "[p]roduct-by-process claim, although reciting subject matter of claim in terms of how it is made [i.e.,"sputtered"], is still product claim; it is patentability of product claimed and not recited process steps that must be established, in spite of fact that claim may recite only process limitations." See *In re Hirao and Sato*, supra.

With respect to claim 47, Santini teaches an information storage system (30) comprising a moving medium (34); a transducer (40/900) disposed adjacent the moving medium and containing a plurality of layers (includes 902 and 906) deposited on a wafer substrate (42), the layers including a magnetically soft loop (includes 904, 916, and unlabeled element immediately below 902, lines 31-35 in column 3, for instance) substantially encircling an electrically conductive coil section (includes 905) and terminating adjacent the medium in a first magnetically soft pole-tip layer (unlabeled element immediately below 902, lines 31-35 in column 3, for instance) and a second magnetically soft pole-tip layer (904), with an amagnetic gap layer (903) disposed between the pole-tip layers, wherein a portion of the medium adjacent to the transducer travels in a direction (as shown in FIG. 1, for instance) and the second magnetically soft layer is oriented substantially parallel to the direction (as shown in FIGS. 28-29 relative to FIGS. 1-3).

11. Claim 23 is rejected under 35 U.S.C. § 102(e) as being anticipated by Van Kesteren (US 5,890,278).

Van Kesteren teaches a transducer comprising a magnetically soft loop (includes 9/109 and 17/117) substantially encircling an electrically conductive coil section (includes 121) and

terminating adjacent a media-facing surface (19/119) in first (17/117) and second (9/109) magnetically soft layers separated by an amagnetic gap layer (15/115), wherein the second magnetically soft layer has a growth morphology that is not substantially perpendicular to the amagnetic gap layer (lines 60-67 in column 3, for instance).

Claim Rejections - 35 U.S.C. § 103

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103(a).

Pertinent Prior Art

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes Heim et al. (US 5,793,578), Chang et al. (US 5,805,391), Furusawa et al. (US 6,339,524), Sasaki (US 6,317,289), Terunuma et al. (US 6,329,211), Furusawa et al. (JP 11-031308) and Tsuda (JP 11-213334), which each individually teaches a transducer with a perpendicularly oriented pole layer.

Conclusion

14. Any inquiry concerning the above referenced application should be directed to the examiner, Craig A. Renner, whose telephone number is (703) 308-0559, and whose facsimile number is (703) 872-9314. The examiner can normally be reached Tuesday through Friday from 7:30 a.m. to 6:00 p.m. E.S.T.

Craig A. Renner
Primary Examiner
Art Unit 2652

CAR
March 15, 2002